AMENDMENT TO THE CLAIMS

Please amend claims 1, 7, 10, 18, 23, and 29 as shown below.

1.   (Currently Amended) A method for providing end-to-end QoS for applications running in multiple transport protocol environments which comprises:

formulating a query message at a client machine, said query message containing a source IP address and a QoS profile requirement of a user application;

sending the query message to a server machine;

decoding the query message at the server machine;

determining availability of PVC connections ~~and SVC connections~~ at the server;

determining availability of SVC connections at the server;

formulating a response message at the server machine, said response message containing server information and the availability of the PVC connections and the SVC connections;

sending the response message to the client machine;

decoding the response message at the client machine; and

connecting the client machine to the server machine based upon the response message.

2.   (Original) The method of claim 1, further comprising:

connecting the client machine to the server machine using the PVC connection when the response message indicates that the PVC connection is available.

3.   (Original) The method of claim 2, further comprising:

connecting the client machine to the server machine using the SVC connection when the response message indicates that the SVC connection is available.

4.   (Previously Presented) The method of claim 1, further comprising:

receiving additional response messages from the server;

3

extracting server information stored in the additional response messages; and

storing the server information in a connection database at the client machine.

5.   (Original) The method of claim 4 further comprising repeating the steps of claim 4 until a server having the QoS profile has been identified.

6.   (Original) The method of claim 5 further comprising connecting the client machine to the server having the desired QoS profile.

7.   (Currently Amended) A method for establishing end-to-end QoS for a client machine which comprises:

querying a plurality of servers for a connection response;

receiving the connection response from at least one of the plurality of servers, the connection response comprising a available QoS level levels, server information, and connection information;

extracting the QoS level, server information, and connection information from the connection response;

storing the QoS level, server information, and connection information in a connection database;

searching the connection database for a server having a desired QoS level;

repeating the steps of querying, receiving, extracting, storing, and searching until the server having the desired QoS level is identified.

8.   (Original) The method of claim 7, further comprising:

retrieving the server information and the connection information from the connection database;

selecting a desired server based upon the server information and the network information; and

negotiating a connection between the client application and the desired server using a PVC connection or a SVC connection between the client application and the desired server.

9.   (Original) The method of claim 8, further comprising repeating the steps of retrieving, selecting, and negotiating when a new connection is requested by the client application.

10.   (Currently Amended) An apparatus for providing end-to-end QoS for a client application which comprises:

a QoS selector located at a client machine, the QoS selector configured to gather client application QoS requirements and to formulate connection requests;

a second QoS selector located at a server machine, the second QoS selector configured to receive the connection requests and to formulate connection responses indicating multiple connection availability comprising PVC connection availability and SVC connection availability;

means for storing server information at the client machine; and

connection means located at the client machine, said connection means receiving the connection response and connecting the client application to the server machine based upon the connection response.

11.   (Previously Presented) The apparatus of claim 10, wherein the first QoS selector is configured to store an IP address of the client machine in the connection request.

12.   (Previously Presented) The apparatus of claim 11, wherein the second QoS selector is configured to store VPI/VCI connection pair values in the connection response when a PVC connection exists at the server machine.

5

13.   (Previously Presented) The apparatus of claim 12, wherein the second QoS selector is configured to store an ATM address of the server machine when an SVC connection exists at the server machine.

14.   (Original) The apparatus of claim 13, wherein the connection means establishes a PVC connection between the client machine and the server machine when the VPI/VCI connection pair values are detected in the connection response.

15.   (Original) The apparatus of claim 14, wherein the connection means establishes an SVC connection between the client machine and the server machine when the ATM address is detected in the connection response.

16.   (Original) The apparatus of claim 15, wherein the storage means extracts ATM connection information, server mapping information, server QoS information, and server address information from the connection response.

17.   (Original) The apparatus of claim 16, wherein the storage means stores the ATM connection information, server mapping information, server QoS information, and server address information in a connection database.

18.   (Currently Amended) A method comprising:
receiving a message from a plurality of servers in response to a query message, the message containing service indicator data indicative of a level multiple levels of service provided by the respective server;
storing the service indicator data; and
sending a message to a client machine to indicate the availability of one or more of the plurality of servers to provide a level of service required by a client application.

19. (Previously Presented) The method of claim 18 wherein the service indicator data indicates the availability of the level of service at the respective server.

20. (Previously Presented) The method of claim 18 wherein the service indicator data indicates the availability of PVC connections and SVC connections at the respective server.

21. (Previously Presented) The method of claim 18 wherein the service indicator data indicates the Quality of Service availability at the respective server.

22. (Previously Presented) The method of claim 18, further comprising selecting a server for communication with the client application based at least in part on the service indicator data.

23. (Currently Amended) A method comprising:

formulating a query message at a client machine containing a service level requirement of a client application;

sending the query message to a plurality server machines;

receiving a response message from at least a portion of the plurality of server machines in response to the query message, the response message containing data indicative of a level multiple levels of service provided by the respective server machine; and

connecting the client machine to a selected one of the server machines based at least in part upon the response message.

24. (Previously Presented) The method of claim 23 wherein the query message includes a source IP address.

25.   (Previously Presented) The method of claim 23 wherein the data in the response message indicates the availability of PVC connections and SVC connections at the respective server.

26.   (Previously Presented) The method of claim 23 wherein the data in the response message indicates the Quality of Service availability at the respective server.

27.   (Previously Presented) The method of claim 23 wherein connecting the client machine to the server machine comprises connecting the client machine to the server machine using a PVC connection when the response message indicates that the PVC connection is available.

28.   (Previously Presented) The method of claim 23 wherein connecting the client machine to the server machine comprises connecting the client machine to the server machine using a SVC connection when the response message indicates that the SVC connection is available.

29.   (Currently Amended) An apparatus comprising:
        a service selector configured to formulate a connection request for transmission to a server, the connection request indicating service level requirements for a client application;
        a data structure configured to receive and store a connection response from the server indicating multiple service level ~~capability~~ capabilities of the server; and
        a communications controller configured to connect the client application to the server based at least in part upon the service level capability.

30.   (Previously Presented) The apparatus of claim 29 wherein the service selector is configured to store an internet protocol (IP) address of the client machine in the connection request.

31.   (Previously Presented) The apparatus of claim 29 wherein the connection response indicates that a PVC connection exists at the server machine, the data structure further configured to store VPI/VCI connection pair values.

32.   (Previously Presented) The apparatus of claim 31 wherein the communications controller is configured to establish a PVC connection between the client machine and the server machine when the VPI/VCI connection pair values are detected in the server information.

33.   (Previously Presented) The apparatus of claim 29 wherein the connection response indicates that a SVC connection exists at the server machine, the data structure further configured to store an ATM address of the server machine.

34.   (Previously Presented) The apparatus of claim 33 wherein the communications controller is configured to establish a SVC connection between the client machine and the server machine when the ATM address of the server machine is detected in the server information.

35.   (Previously Presented) The apparatus of claim 29 wherein the communications controller is configured to extract ATM connection information, server mapping information, server QoS information, and server address information from the connection response.

36.   (Previously Presented) The apparatus of claim 35 wherein the data structure is configured to store information extracted from the connection response by the communications controller.

37.   (Previously Presented) The apparatus of claim 29 wherein the level of service is a Quality of Service (QoS) level and the selector is configured to gather QoS requirements for the client application.

38. (Previously Presented) The apparatus of claim 37 wherein the data structure is configured to store data related to QoS capability of the server.

39. (Previously Presented) The apparatus of claim 29 wherein the selector is further configured to formulate a connection request for transmission to a plurality of servers.

40. (Previously Presented) The apparatus of claim 39 wherein the data structure is further configured to receive a connection response from the plurality of servers indicating service level capability of the respective server.

41. (Previously Presented) The apparatus of claim 39 wherein the level of service is a Quality of Service (QoS) level and the data structure is configured to store data related to QoS capability of the plurality of servers.

42. (Previously Presented) The apparatus of claim 39 wherein the communications controller is further configured to connect the client application to a selected one of the plurality of servers based at least in part upon the service level capability of the selected one of the plurality of servers.

43. (Previously Presented) The apparatus of claim 29 wherein the level of service is a Quality of Service (QoS) level and the communications controller is further configured to connect the client application to a selected one of the plurality of servers based at least in part upon the QoS capability of the selected one of the plurality of servers.